

Headquarters Air Mobility Command



Patient Isolation Unit Update for CCM

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HQ AMC/A58F

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Pod Update



■ Overview:

- Background
- Current Status/Photo
- Way Ahead



Background

- **New initiative identified in AMC Master Plan and '03 CRRA**
- **No equipment in AE inventory to move larger numbers of biologically contagious patients**
- **AFDD 2-1.8 states combatant commander may direct movement of contaminated casualties**
 - **Does not direct address biologically contaminated patients**
 - **Movement of BW patients addressed in other manuals**



Background Continued



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- **Currently no COTS/GOTS products available to fully meet requirements**
 - **Very limited supply of Vickers units**
 - **CRADA for development of Pod signed by USAMRIID and Alion Science**
 - **USTRANSCOM and AMC partnering with CRADA**



Current Status

- **Validated by SGROC**
- **AMC continuing to assess COTS items & seeking funding from USTC to begin testing early**
 - **AMC “must pay” FY 06-11**

Ongoing meeting with Alion Science

- **Engineering Prototype completed & under review**

- **PACAF seeking WRAP funding**
- **311th HSW awarded Congressional plus-up**



Initial Alionscience Prototype



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Completed Engineering Prototype



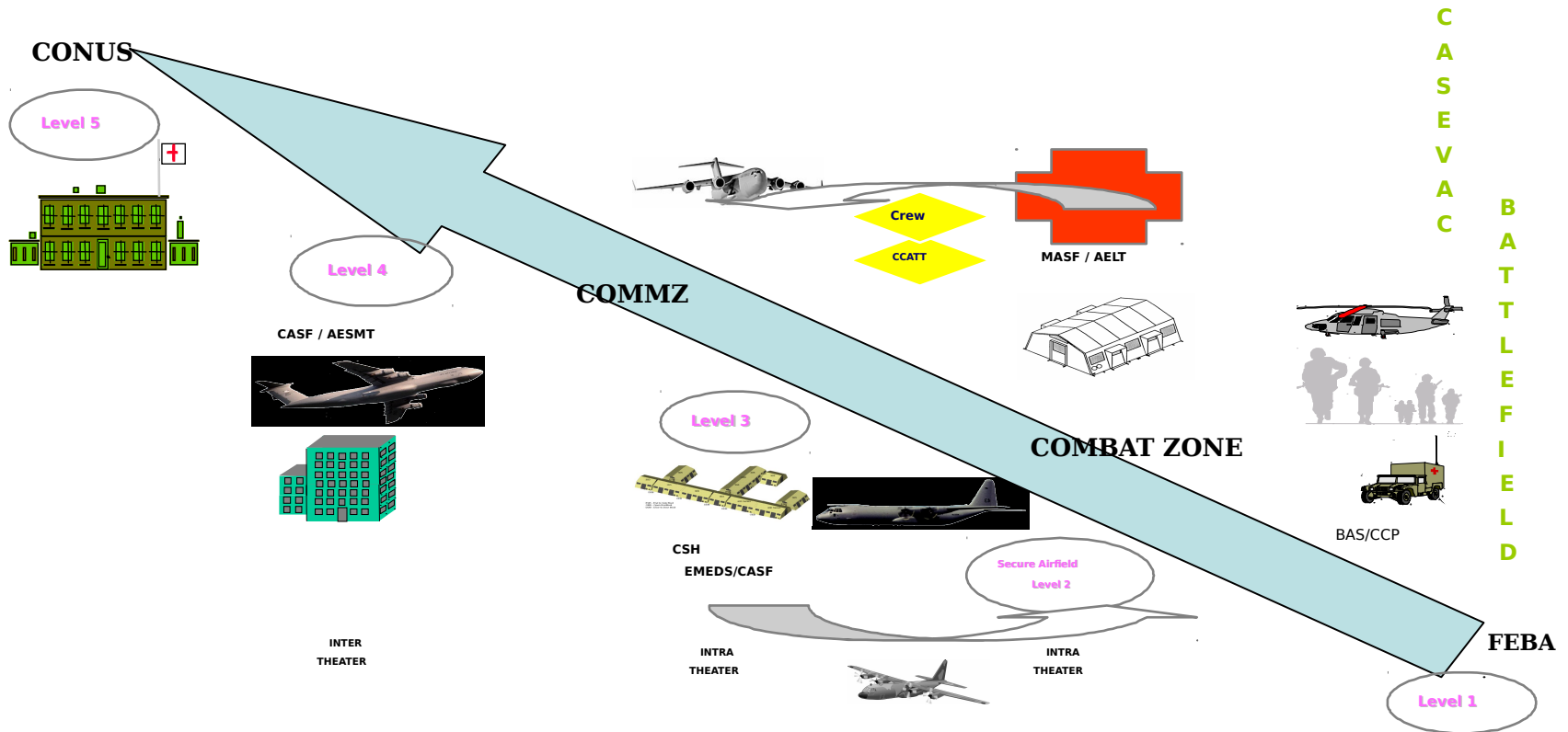
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AF CCM AE Capability



HIGH LEVEL OPERATIONAL CONCEPT GRAPHIC





Potential KPPs

- FDA/FAA approval
- Capability to decontaminate any non-disposable elements
- Air-exchange capable
- Protection against external CW/BW agents for patient, & protection of air/medical crew against patient-borne contaminants
- Medical access to the patient
- Airworthiness certification
- Sized to fit on and within a NATO litter
- Man-portability



AE Requirements



- **Amount Requested: 20**
- **Disposable and/or easy to decontaminate**
- **Have negative flow option/filters**
- **Exchange Port Capability**
- **Air Worthiness Certified**
- **Compatible with Aircraft Power**
 - **Required: 110 VAC/60-400 HZ**
 - **Desired: 110-220 VAC/60-400 Hz**
 - **Max Amps: no more then 2 amps**
- **Fits standard NATO litter**



AE Requirements

- **Weighs no more than 50 pounds**
- **Disposable accessory equipment hook-ups (i.e. BP cuff, red dot leads, pulse oximetry probe, etc.) with ports for access**
- **Low voltage white lighting unit and red lighting unit to visualize patient in low/no light conditions**
- **General and Human Waste exchange feature (want waste to be double bagged)**
- **Environmental Features (i.e. some type of cooling and/or de-fogging device)**



AE Requirements

- **Battery unit for transport (should fit into standard ambulance)**
- **At Least five sets of treatment ports (one at head, two on each side and potentially one at the feet)**
- **Needless IV system to administer meds and fluids**
- **Able to utilize: Ventilator, IV Pump(s), Cardiac Monitor, Pulse Oximetry, and non-invasive and invasive blood pressure monitoring**

MAF - Patient Isolation Unit

BACKGROUND:

(U) New initiative to determine if capability can be designed to transport patients ill with Critical List infections

(U) Only Critical List BW agents present threat to Air Mobility (smallpox, Ebola/Marburg, CCHF, & pneumonic plague)

ADJUSTMENT:

(U) Provide RDT&E, procurement, and O&M funding for airworthiness testing to develop capability to transport biologically contaminated patients.

<u>\$M06R2M149MN</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>
CURRENT PRG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADJUSTMENT			2.1	1.7	1.4	1.5	0.1	0.1
REV PGM			2.1	1.7	1.4	1.5	0.1	0.1
TOTAL								

<u>PROCUREMENT</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>MPWR</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>
Pt Isolation Unit	0	0	0	8	6	6	0	0	OFF	0	0	0	0	0	0	0	0
									EN	0	0	0	0	0	0	0	0
									L								
									CIV	0	0	0	0	0	0	0	0

IMPACTS:

- (U) COCOM: SPG: No CONOPS: No UFR: No I-CRRA: Yes
- (U) REQUIREMENT: RDT&E funding to determine if a biocontainment PM capability can be developed;
- (U) USAF AE Program currently lacks PM biocontainment transport capability
- (U) If not funded, will be unable to transport patients with critical lists agents via AE System
- (U) Partnering with US Army Medical Research Institute for Infectious Diseases (USAMRIID)
- (U) Aircraft DECON requires coordinated efforts of LG/SG/CE & SPO engineering to ensure aircraft usability
- (U) LIMFAC: Diplomatic clearance restrictions/political concerns may impact actual utilization of capability

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MAF - Patient Isolation Unit

ADJUSTMENT: (U) Provide RDT&E, procurement, and O&M funding for airworthiness testing to develop capability to transport biologically contaminated patients.

Panel Chair:	Program Element Mtr:	
Panel POC:	3400 FM Appn Manager	
CONOP Champion:	3600 FM Appn Manager	
Crosscut Panel:	3080 ILPY Manager	
IPT Chief:		XPPE DB Manager:
ANG/AFR:		ZBT Manager:



Way Ahead

- **Continue to re-assess COTS/GOTS items**
 - **Seek FDA approval and airworthiness certification**
 - **Seek test funding for prototypes**
 - **Continue partnering with Alionscience and USAMRIID**
 - **Consider evaluating prototype during MUA or field exercise**
 - **Training**
 - **Work with A33E & others to draft CONOPS**
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Headquarters Air Mobility Command



QUESTIONS

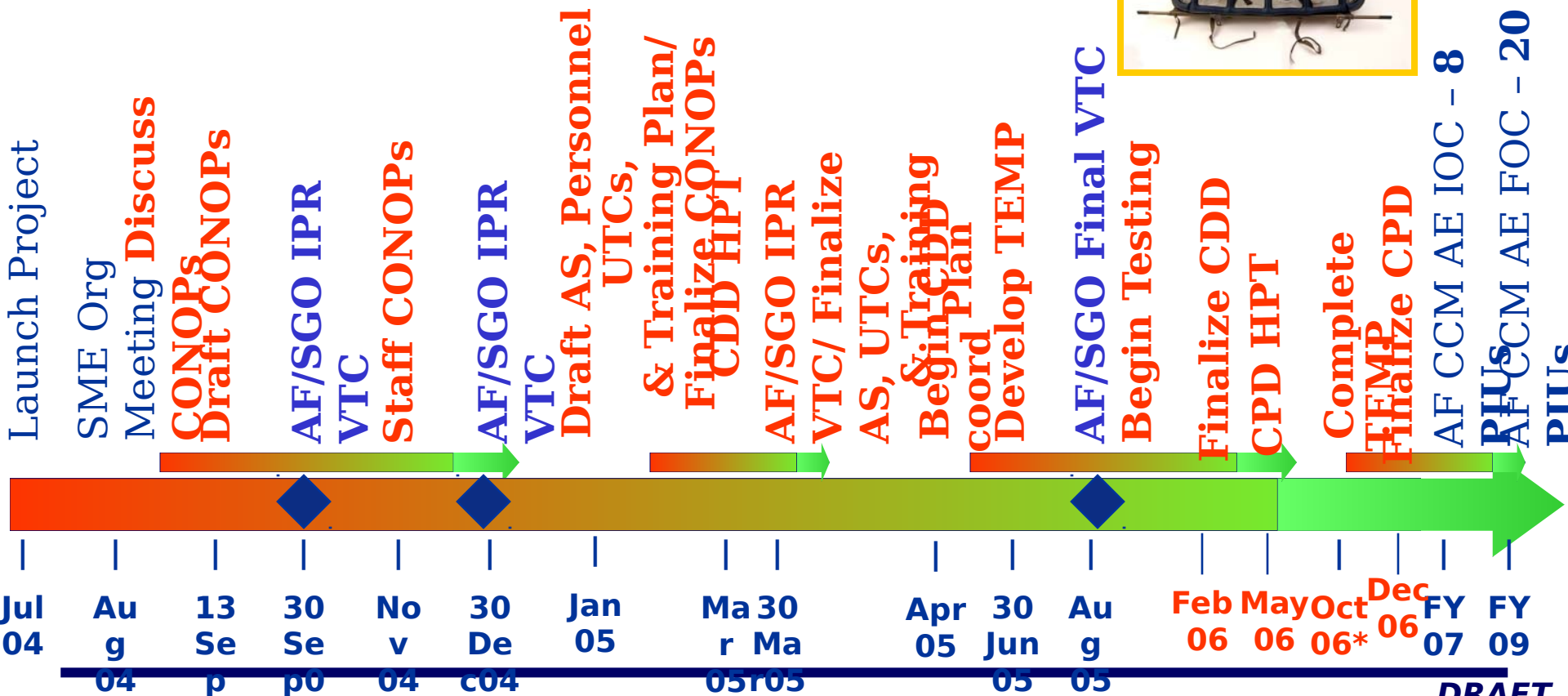
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Contagious Casualty Management AE



- Develop AE Capability to **transport** contagious casualties in a deployed environment - A



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